

COASTAL PROTECTION AND RESTORATION AUTHORITY

Mid-Barataria Sediment Diversion Draft Environmental Impact Statement and Draft Restoration Plan

BRAD BARTH, MID-BASIN SEDIMENT DIVERSION PROGRAM MANAGER

BREN HAASE, EXECUTIVE DIRECTOR

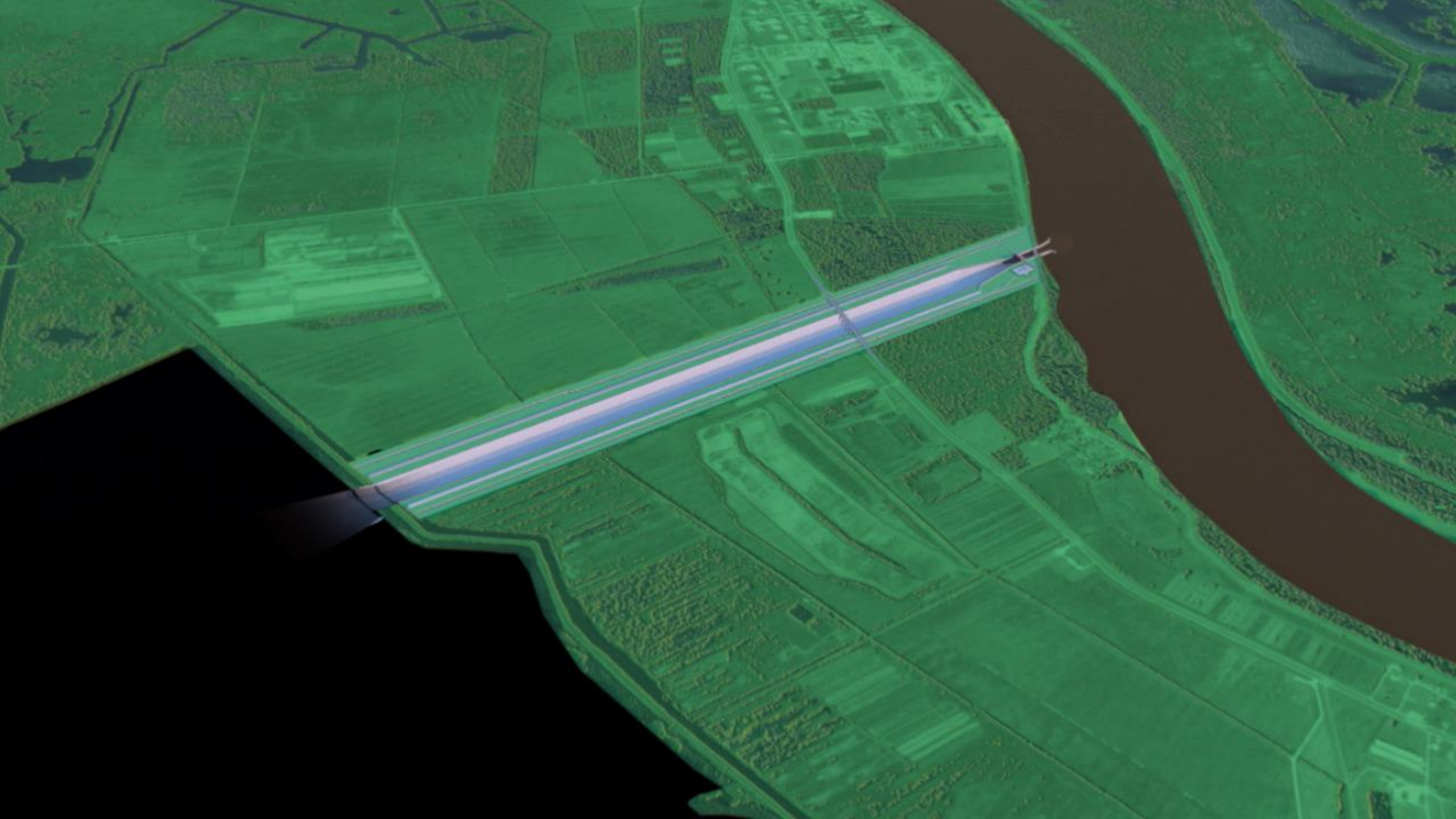
BRIAN LEZINA, CHIEF OF PLANNING



The Problem

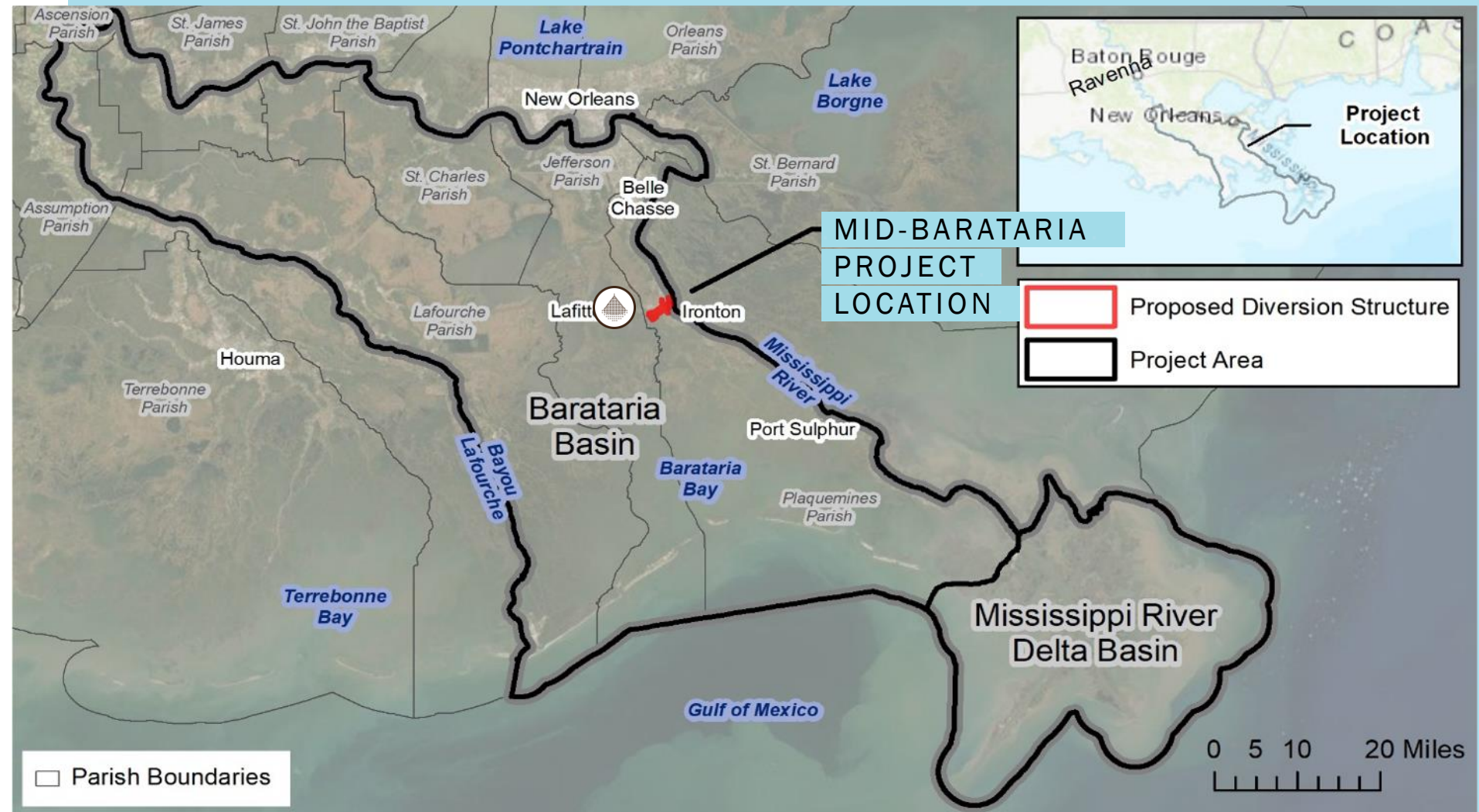
- Levee System Restricts River
- Lack of Sediment Delivery
- Barataria Basin has lost 276,000 acres (OVER 430 square miles) of marsh since the 1930's

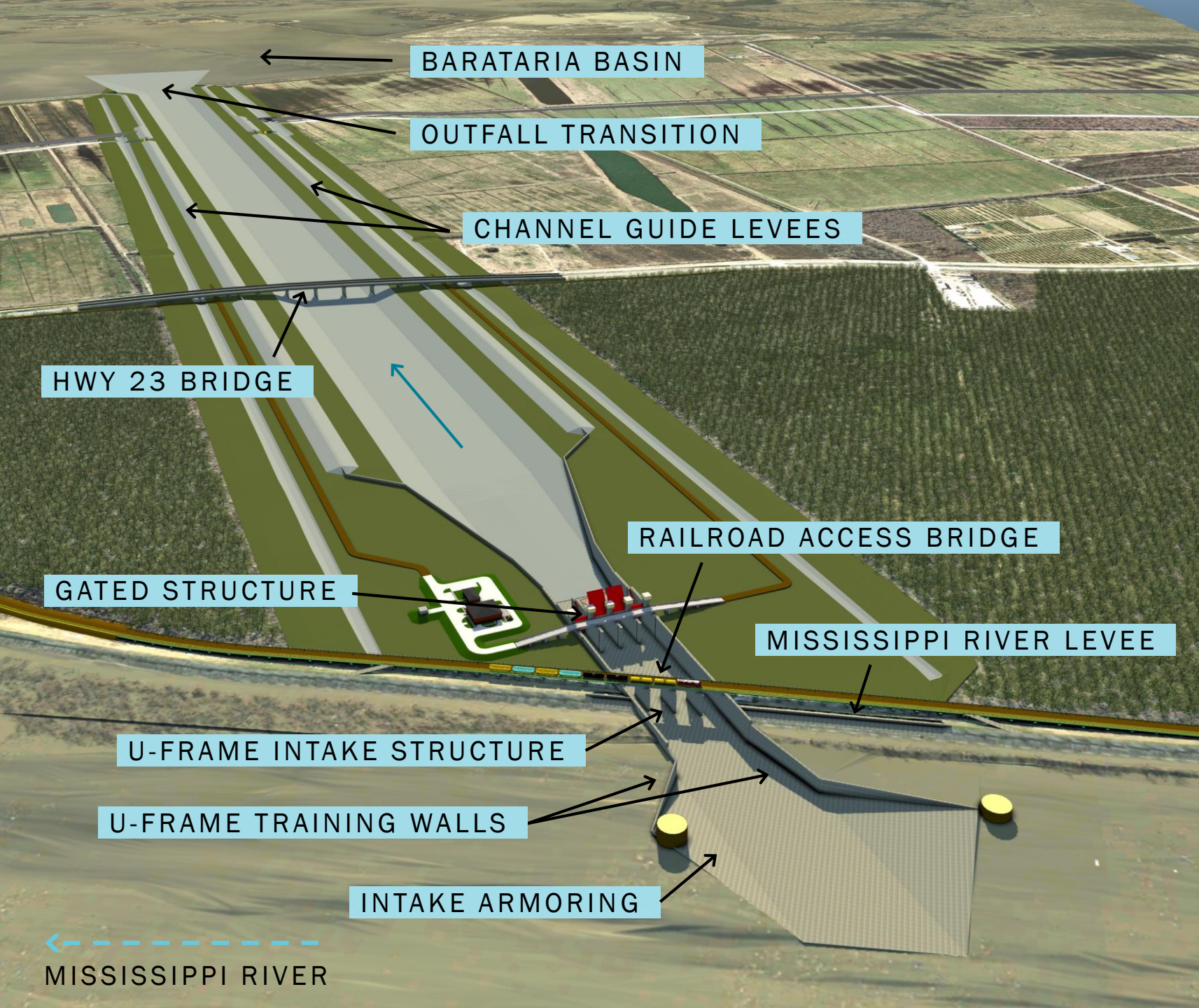




Mid-Barataria Sediment Diversion

Near Ironton, LA
River Mile 61





Details & Operations

Controlled, gated structure

Maximum flow: 75,000 cfs

Width: 1,600-foot Corridor

Length: Approx. 2 miles

Estimated Project Costs

PROPOSED FUNDING SOURCE: *DEEPWATER HORIZON* OIL SPILL SETTLEMENT DOLLARS



Construction: \$1.45 billion



Planning and Design: \$81 million



**Services during construction/
construction management:** \$77 million



Permitting: \$9.5 million



**Land acquisition (land and
process costs):** \$53 million



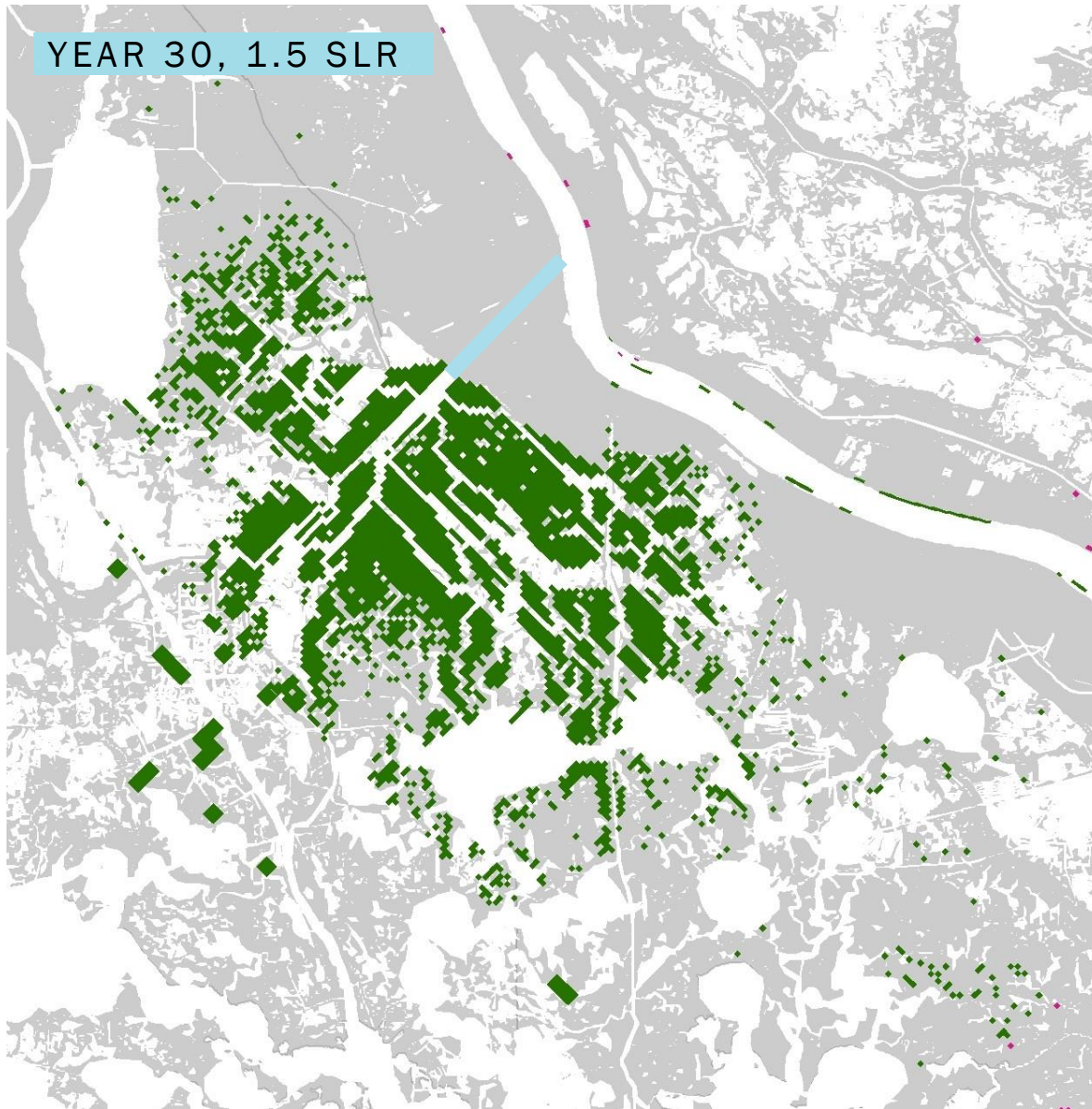
Project monitoring: \$16.5 million



**Other mitigation and
contingencies:** at least \$305
million (still in development)

Project Benefits





Marsh Created and Sustained

Barataria:

+17,300 acres at 30 yrs

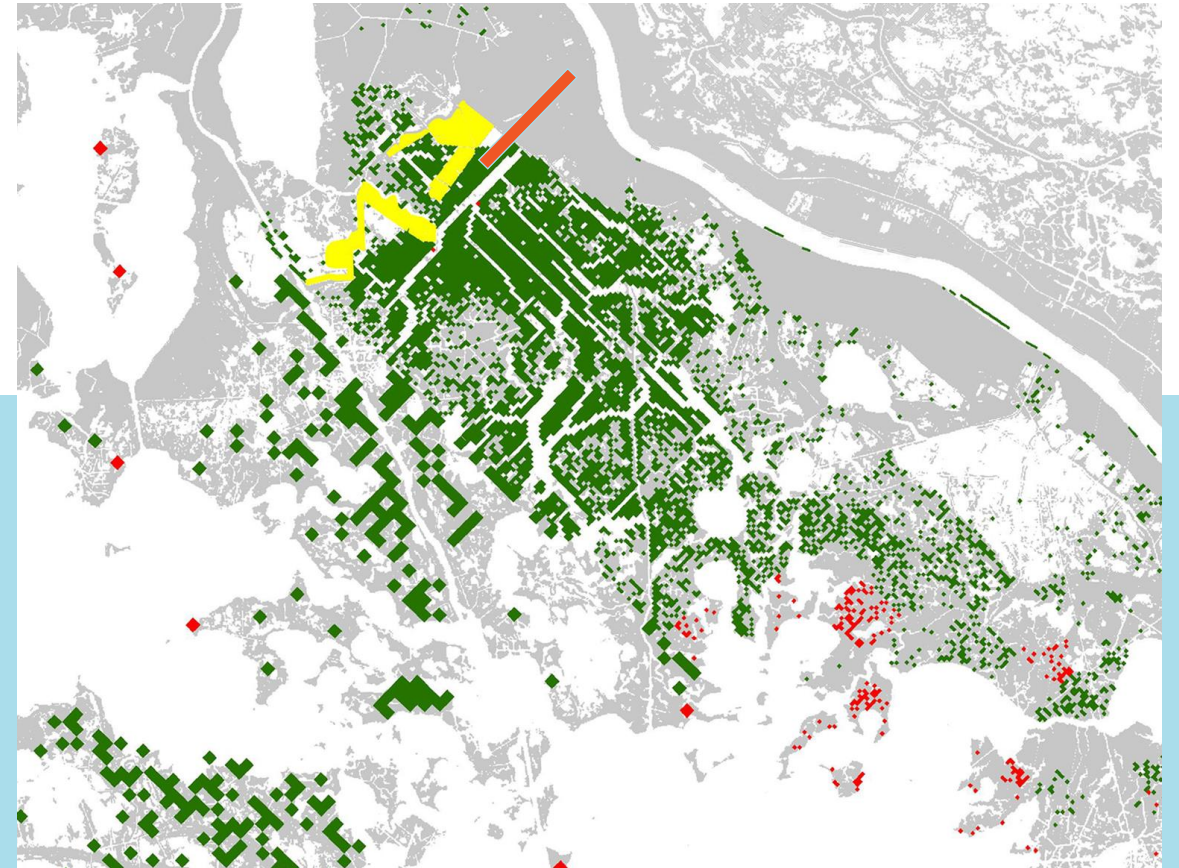
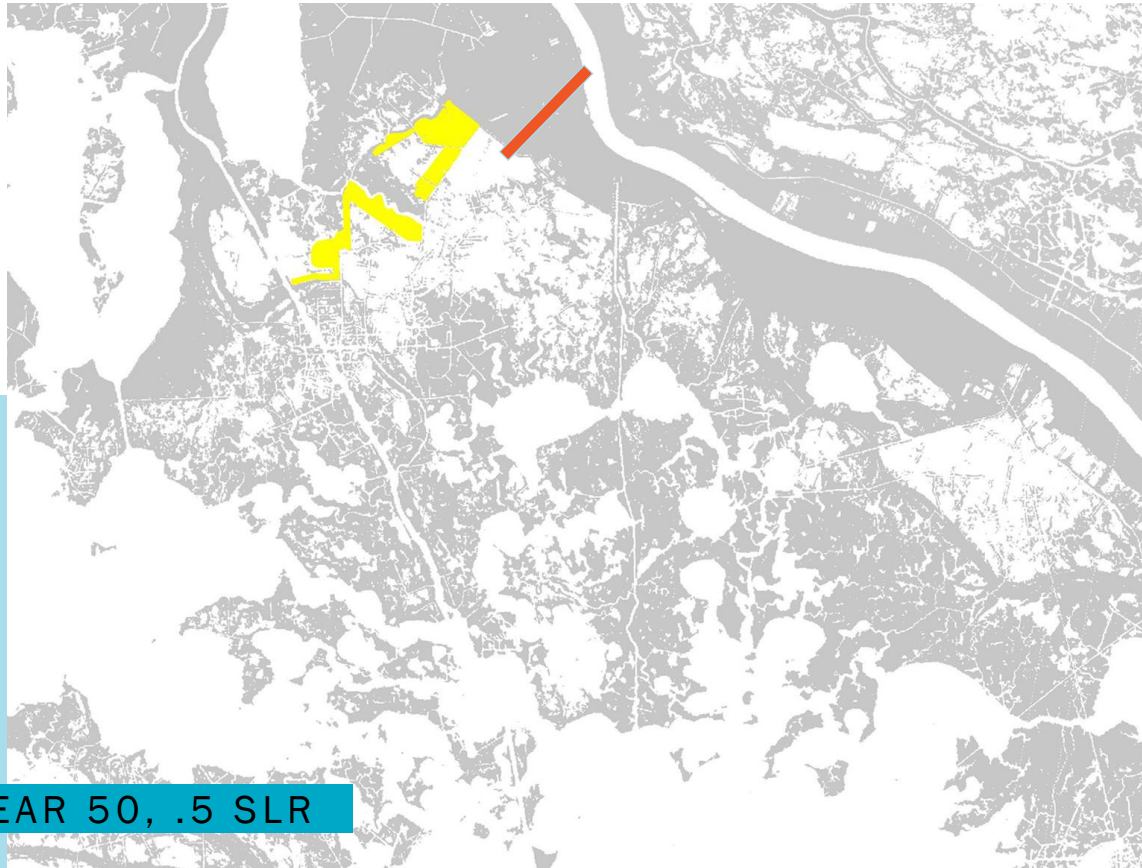
+13,400 acres at 50 yrs

Represents 20% of the total remaining marsh in the Basin

Birdfoot Delta:

-2,000-3,000 acres

Marsh Creation Comparison



■ PROPOSED MID-BARATARIA PROJECT SITE
■ LAND GAINED AND SUSTAINED ■ MARSH CREATION PROJECT

Storm Surge Protection



CREATES AND PROTECTS COASTAL MARSHES THAT REDUCE STORM SURGE AND WAVE HEIGHTS DURING LARGE STORMS:

- Created and sustained land provides 0.5-1.0 foot of storm surge reduction in areas north of the diversion
- Protected populations include areas in the west bank and near New Orleans with high concentration of minority and low-income communities
- Other areas north of the sediment diversion, including some outside of the levee system, including coastal communities critical to Louisiana's economy



Project Benefits

AQUATIC AND TERRESTRIAL SPECIES

AQUATIC SPECIES BENEFITS

- Large Mouth Bass (moderate benefit, including recreational fishery)
- Red Drum (moderate benefit, including recreational fishery)
- Gulf Menhaden (moderate benefit, including commercial fishery)
- Bay Anchovy (minor benefit)
- White Shrimp (negligible to minor benefit, including recreational and commercial fishery)
- Blue Crab (negligible to minor benefit, including recreational and commercial fishery)

MINOR TO MODERATE BENEFITS TO SOME TERRESTRIAL SPECIES

- Alligator
- Green-winged Teal
- Mottled Duck

Other Project Benefits

RECREATIONAL USE BENEFITS

- Duck hunting
- Bird watching
- Recreational fishing (red drum and large mouth bass)

BENEFITS TO HABITAT (IN ADDITION TO WETLANDS)

- SAV
- Shallow bottom

BENEFITS TO THE NORTHERN GULF OF MEXICO ECOSYSTEM THROUGH TRANSPORT OF ENERGY FROM BARATARIA BASIN

Economic Impact

PLAQUEMINES, ST. BERNARD,
ORLEANS & JEFFERSON PARISHES

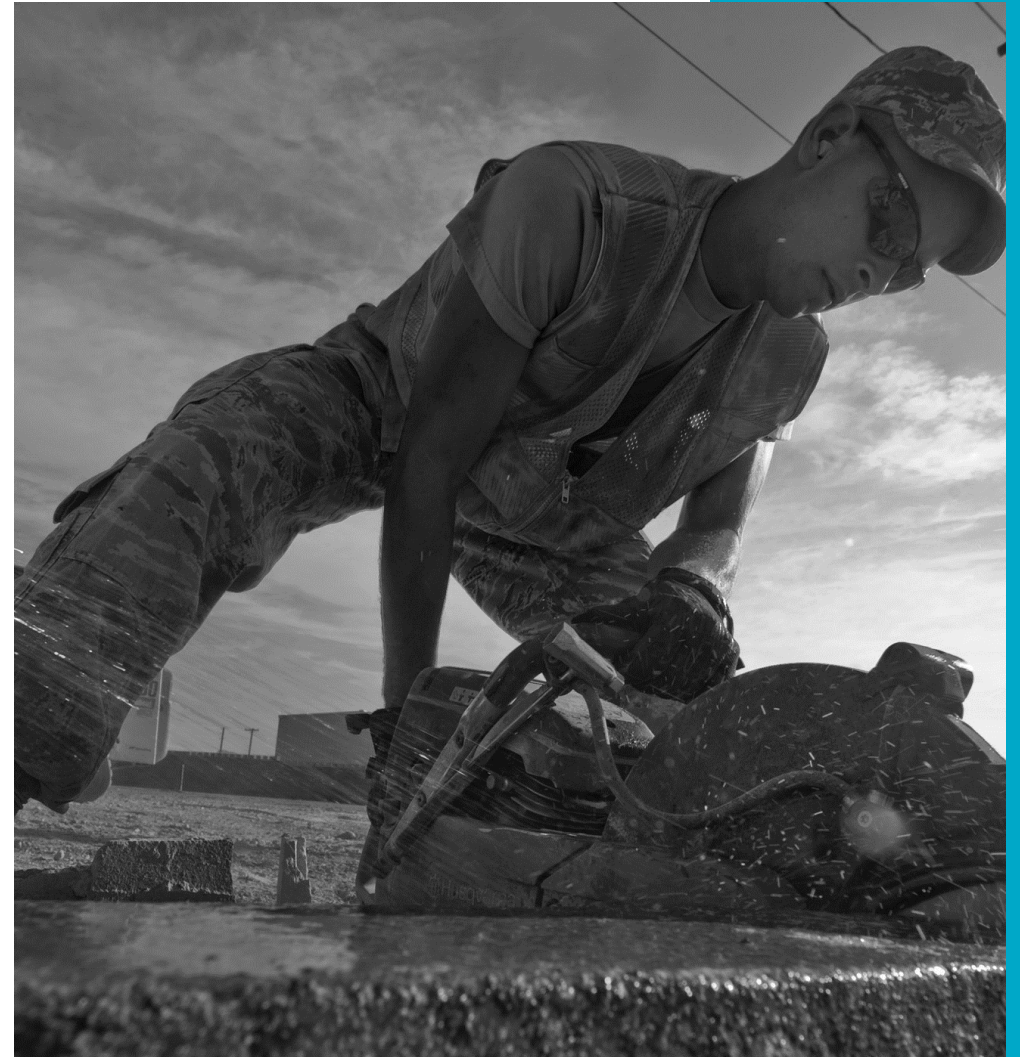
Benefits to local and state businesses, governments
and residents due to construction of the project.

\$1.4 billion increase in sales

\$648 million increase in household earnings

Nearly 12,400 jobs

\$890 million in gross regional product



Project Impacts & Mitigation/Stewardship Measures



Adverse Impacts & Mitigation Measures

DOLPHINS

OYSTERS

BROWN SHRIMP

COMMUNITIES OUTSIDE
FLOOD PROTECTION

ENVIRONMENTAL
JUSTICE COMMUNITIES
& POPULATIONS

Specific Impacts: Dolphins

DECREASED SURVIVAL RATE – FIRST DECADE OF OPERATIONS

REGION	NO-ACTION ALTERNATIVE	WITH MBSD OPERATION (ALTERNATIVE 1)	DIFFERENCE
Island	1.00 (1.00 to 1.00)	0.94 (0.61 to 1.00)	-0.07 (-0.40 to 0.00)
West	0.96 (0.86 to 1.00)	0.56 (0.12 to 0.89)	-0.40 (-0.60 to -0.84)
Central	0.86 (0.61 to 0.99)	0.29 (0.04 to 0.68)	-0.57 (-0.14 to -0.88)
Southeast	0.81 (0.58 to 0.97)	0.68 (0.37 to 0.93)	-0.12 (0.21 to -0.48)
Overall	0.89 (0.75 to 0.98)	0.59 (0.28 to 0.83)	-0.30 (-0.02 to -0.64)

Specific Impacts: Dolphins

CYCLE	FUTURE WITHOUT THE PROJECT	FUTURE WITH THE PROJECT
0	0.890 (0.753-0.982)	0.588 (0.281-0.832)
1	0.967 (0.891-1.000)	0.811 (0.345-0.992)
2	0.880 (0.781-0.960)	0.901 (0.563-0.999)
3	0.797 (0.649-0.926)	0.854 (0.368-0.995)
4	0.647 (0.475-0.804)	0.681 (0.162-0.958)
5	0.658 (0.462-0.817)	0.864 (0.362-0.996)

Monitoring & Adaptive Management (MAM)

MMPA waiver requires monitoring of dolphin population and minimization of impacts

World-class monitoring system that allows for measuring response of system (water, land, animals, humans, etc.)

Enhance current monitoring to inform adaptive management of operations and optimizations/minimization of impacts where practical

Monitoring/Stewardship Strategies: Dolphins

\$20M MONITORING, \$20M STEWARDSHIP

MONITORING AND ADAPTIVE MANAGEMENT

Enhanced monitoring to allow minimization of impacts where practical

ENHANCE STATEWIDE STRANDING NETWORK

Increase personnel and continue through 2046

FUND EFFORTS TO REDUCE OTHER STRESSORS ON DOLPHIN POPULATION (PARTNER WITH LDWF)

Targeted at fishing gear changes, reducing illegal feeding, addressing noise, addressing shooting

ESTABLISH CONTINGENCY FUND TO ADDRESS POTENTIAL UME DECLARATION IN BARATARIA BASIN

Brown Shrimp and Oysters

MITIGATION TOTAL = \$33M

SPECIFIC IMPACTS

- Major adverse impact with or without project
- MBSD project accelerates timing of impacts
- Reduction in abundance, but fisheries will not be eliminated

MITIGATION/STEWARDSHIP

Oysters

- Establish new public seed ground in lower basin
- Provide cultch material to enhance public and private growing areas
- Enhance oyster broodstock reefs
- Assistance in transition to off-bottom culture

Shrimp

- Vessel Refrigeration
- Fund Gear improvements to increase efficiency

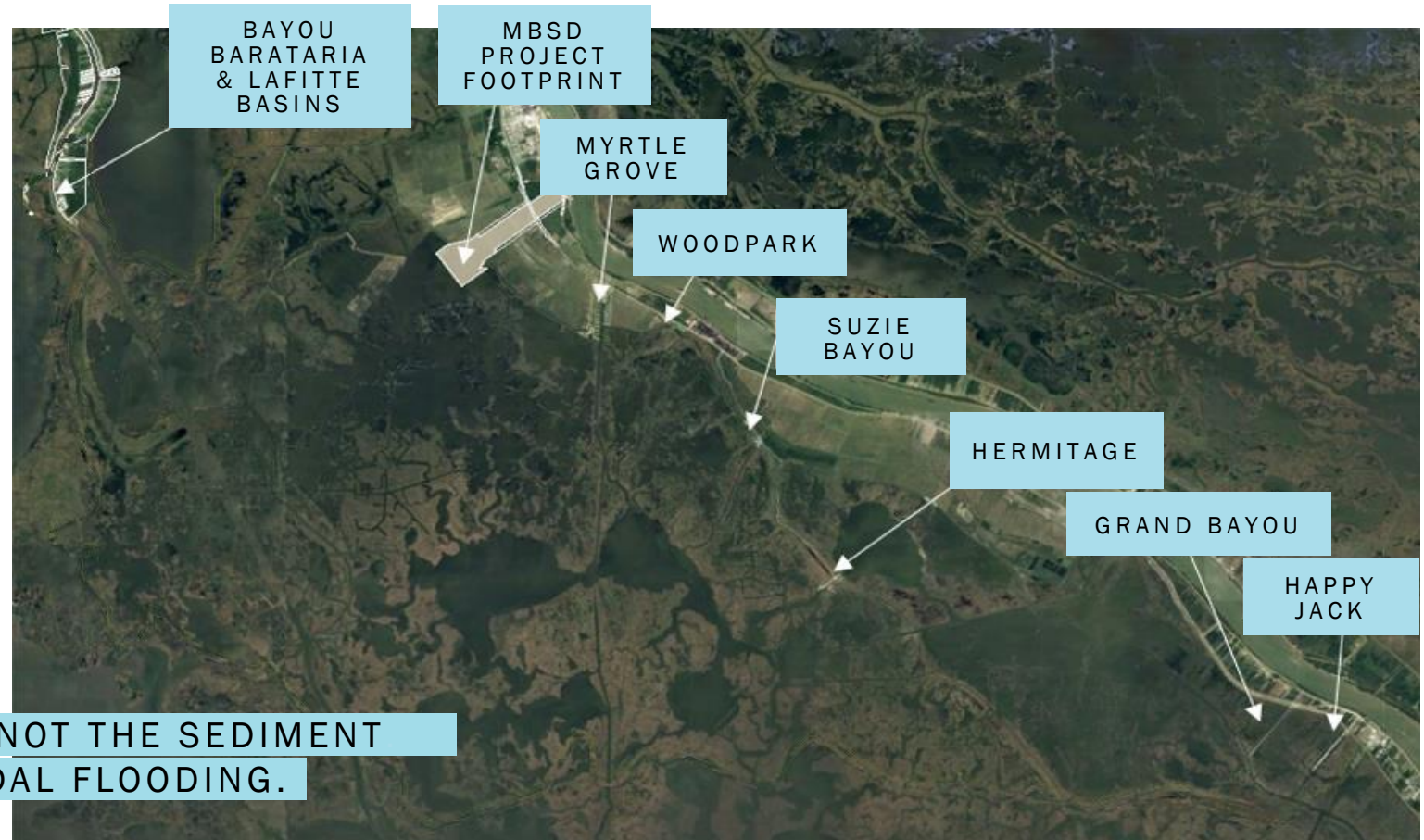
Both Fisheries

- Fund marketing program
- Business training to enhance business revenue
- Workforce training to assist transition to new employment, industry, or market

Specific Impacts: Increased Water Levels

COMMUNITIES NEAR PROJECT SITE OUTSIDE FLOOD PROTECTION

- From Myrtle Grove to Happy Jack: about 530 total properties
- According to tax records, only 25% subject to the homestead exception = 75% likely vacation camps
- Includes some low income and minority populations



IN LATER DECADES, SEA LEVEL RISE, NOT THE SEDIMENT DIVERSION, DRIVES INCREASES IN TIDAL FLOODING.

Increased Water Levels

IMPACTS

- Impacts to six communities south of MBSD that are outside of flood protection and currently experience flooding
- Impacts decrease with greater distance from MBSD Location
- Based on tax records, majority of properties (75%) did not claim homestead exemption; likely second homes/camps
- MBSD increases water levels in the short term; After 50 years, frequency of flooding is the same with or without the project

MITIGATION/STEWARDSHIP

Structural mitigation

- Community Features – raise roads and other infrastructure
- Property Specific – raising buildings, improving access, septic
- Acquisition of property interests
- Proposing voluntary easements in communities outside levee protection
- Open to fee acquisition where requested by property owner
- Monitoring and adaptive management

Environmental Justice

Environmental Justice (EJ) is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

IMPACTS

Potential for disproportionately high and adverse impacts to low income and minority populations due to:

- Impacts to commercial fisheries
- Impacts to subsistence fishing
- Flood and storm impacts in communities near MBSD

BENEFITS

Protected communities: Greater New Orleans area (significant minority and low-income populations)

Up to one foot of storm surge reduction from marshes created and protected by MBSD

Environmental Justice

OUTREACH & ENGAGEMENT

- Using a survey to capture specific feedback
- Survey available during in person outreach meetings (6 meetings so far), online, and hardcopy at local library
- Outreach efforts closely coordinated with EPA's office of Environmental Justice
- CPRA is committed to reviewing and supplementing current mitigation strategies based on community feedback
- Currently targeting additional outreach directly to minority fishing communities

MITIGATION STRATEGIES

Flooding

- Assisting property owners to elevate their homes and other structures on their properties
- Assisting property owners and/or communities to reduce flooding of their septic/sewer systems and other utilities
- Elevating roadways or utilities
- Paying property owners for losses in value of their properties due to increased flooding, if any

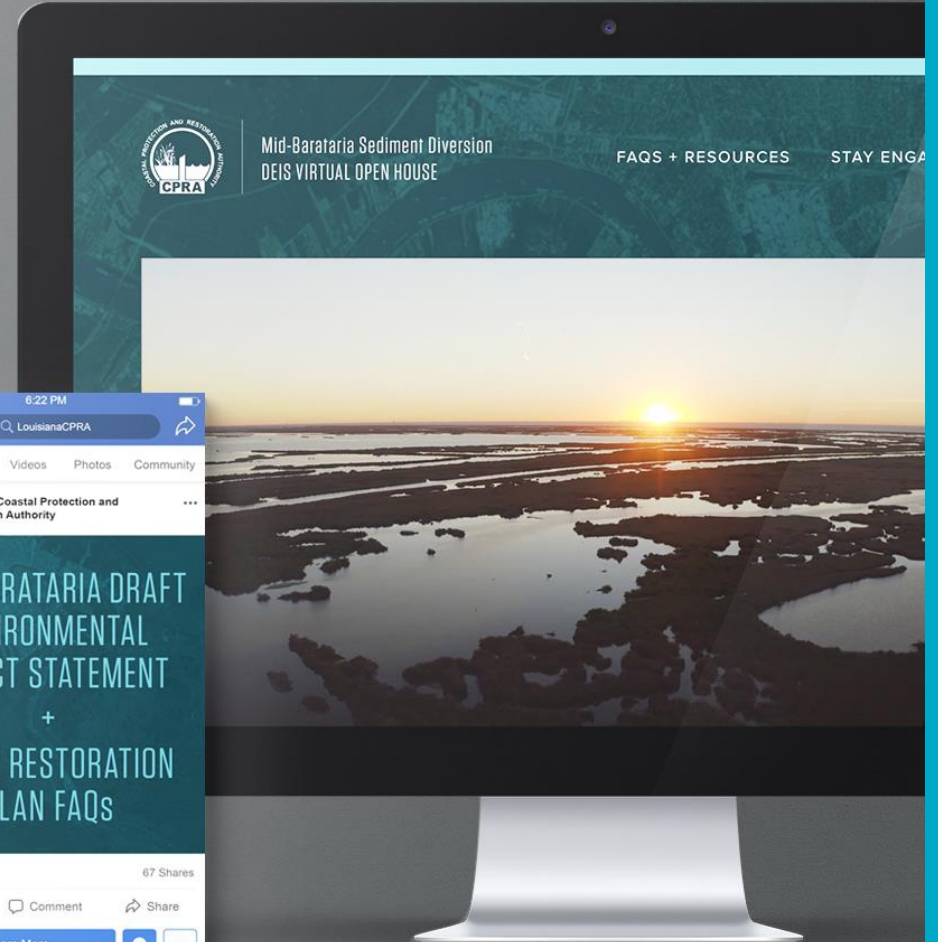
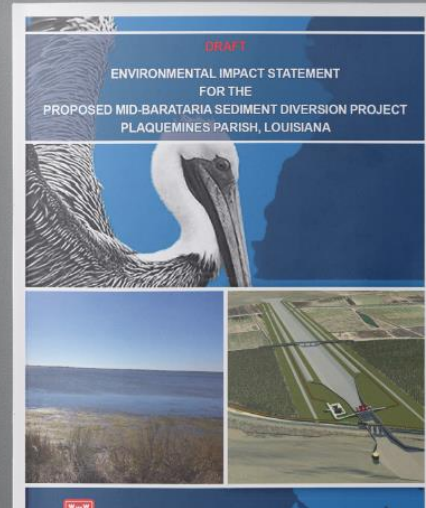
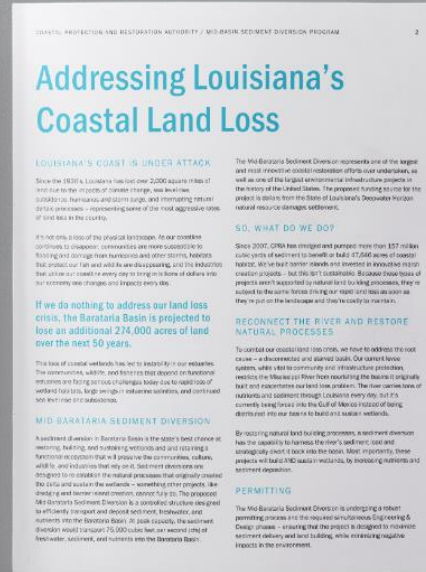
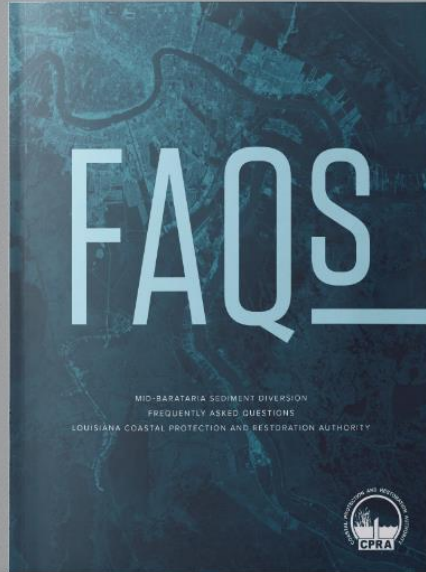
Fisheries

- Funding for new equipment (i.e. upgraded vessel refrigeration or gear improvements)
- Funding for small business/startup support (i.e. grant programs)
- Fund marketing program
- Training programs to gain new skills and switch industry or trade
- Small business development and operations training
- Improve shoreline access for subsistence fishing and others

Outreach & Engagement

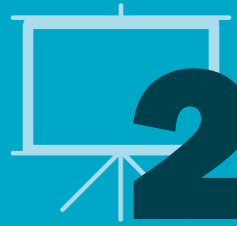


coastal.la.gov/midbarataria



Outreach & Engagement

OVER THE LAST 4 YEARS



230 MEETINGS



ELECTED & PARISH OFFICIALS



SEAFOOD INDUSTRY



RECREATION INDUSTRY



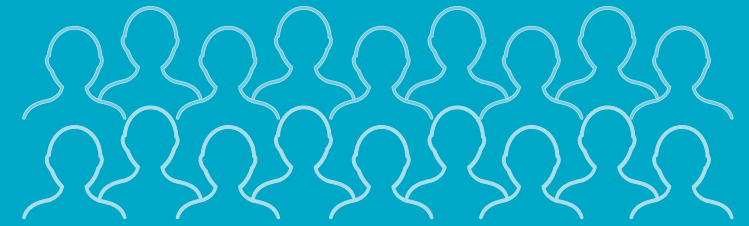
COMMUNITIES NEAR PROJECT SITES



NGO, NONPROFIT, AND STAKEHOLDER GROUPS



GENERAL PUBLIC



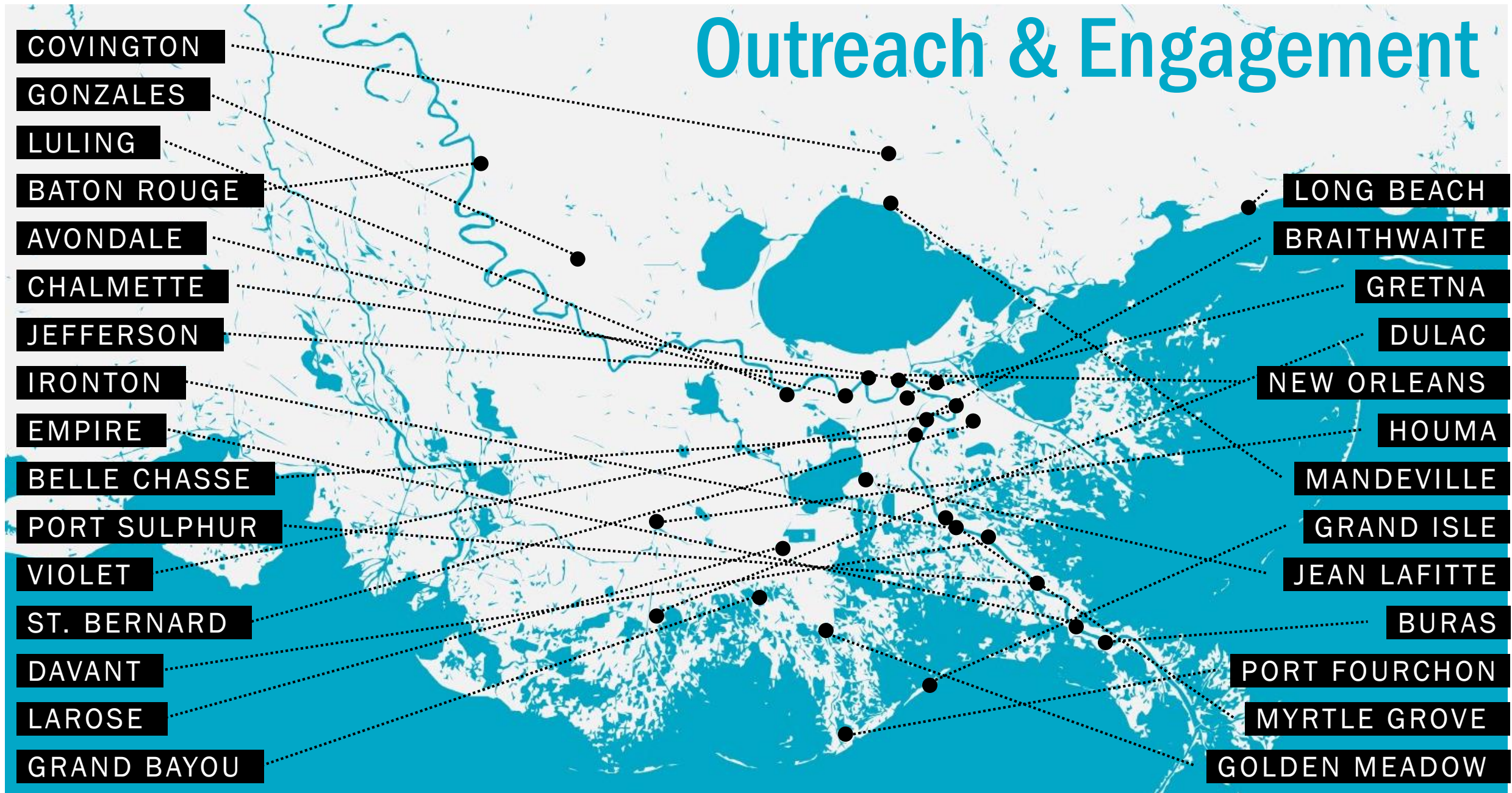
11,000

STAKEHOLDERS REACHED

Stakeholder Groups

- American Society of Civil Engineers
- Audubon Louisiana
- Coalition for Coastal Resilience and Economy
- Coalition to Restore Coastal Louisiana
- Coastal Communities Consulting
- Coastal Conservation Association
- CPRA Board
- Delta Dispatches Podcast
- Environmental Defense Fund
- Finfish Task Force
- GNO Inc.
- Governor's Advisory Commission
- Greater New Orleans Foundation
- Greater New Orleans Port Safety Council
- Internal CPRA staff
- JEDCO
- Jefferson Parish Government
- Louisiana Association of Environmental Professionals
- Louisiana Association of Conversation Districts
- Louisiana Charter Boat Association
- Louisiana Federal Delegation
- Louisiana Sea Grant
- Louisiana State Delegation
- Maritime Navigation and Safety Association Board Meeting
- Mississippi Secretary of State/State delegation
- National Conference on Ecosystem Restoration
- Navigation Focus Groups
- Orleans Parish Government
- Oyster Task Force
- Plaquemines Association of Business and Industry
- Plaquemines Coastal Zone Management Committee
- Plaquemines Economic Development and Tourism Committee
- Plaquemines Knights of Columbus
- Plaquemines Parish Government/Council
- Plaquemines Parish School Board Ponchatrain Conservancy
- Restore the Mississippi River Delta Coalition
- Shrimp Task Force
- St. Bernard Kiwanis Club
- St. Bernard Parish Government/Council
- St. Bernard Rotary Club
- St. Tammany Parish Government
- State of the Coast
- The National Wildlife Federation
- Theodore Roosevelt Conservation Partnership
- USACE New Orleans staff and leadership
- USGS
- Westbank Business and Industry Association
- Westbank Rotary Club

Outreach & Engagement



Our estuary will continue to change

WITH OR WITHOUT THE
MID-BARATARIA
SEDIMENT DIVERSION

WITHOUT THE PROJECT, THE ESTUARY WILL COLLAPSE

- Continued rapid land loss
- Up to 85% less marsh than what we see today
- Increasing dramatic swings in salinity
- Loss of functioning estuary and habitat for species
- Communities see increased tidal flooding
- Increased storm surge risk (including greater New Orleans area)

THE PROJECT WILL RETURN SOME OF THE
HISTORIC FUNCTION OF THE BARATARIA
BASIN ESTUARY AND ENSURE THAT FUNCTION
CONTINUES IN THE FUTURE, DESPITE RISING
SEA LEVELS

COASTAL PROTECTION AND RESTORATION AUTHORITY

Thank You

